

11. (Amended) The method of claim 9 wherein the characteristic spectrum is at 1498 cm⁻¹.

1 12. (Thrice Amended) A system for the detecting the presence of a specific
2 microorganism in a sample, the microorganism having a characteristic resonance enhanced
3 Raman backscattered energy spectrum produced by irradiating nucleic acids in the
4 microorganism at a wavelength between 242-257 nm, the system comprising:

5 (a) means for contacting the sample with a medium comprising solid phase
6 immobilized antibodies which specifically bind to a characteristic cell surface antigen on the
7 microorganism to form an antigen-antibody complex, thereby immobilizing the microorganism
8 on the solid phase;

9 (b) means for irradiating the solid phase of step (a) with a laser light of 242-
10 257 nm to produce a resonance enhanced Raman backscattered energy spectrum; and
11 (c) means for comparing the induced spectrum of step (b) with the
12 characteristic spectrum to detect the presence of the microorganism in the sample, the system